

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1.-9. (Canceled).

10. (Currently Amended) A timing device ~~radio-controlled timepiece~~, comprising:
an antenna ~~being configured to receive electromagnetic waves;~~
a communication unit for communicating to communicate with an external
communication device via the antenna, ~~the communication unit having a receiving unit~~
~~receiving time information at a specific cycle from the outside via the antenna, and a current~~
~~time counter unit sequentially updating the current time information using the time~~
~~corresponding to the time information received by the receiving unit as a reference; and~~
a time display unit having a mechanical structure, the time display unit on which time
information is displayed by the mechanical structure,
the communication unit including
a receiving unit configured to receive time information at a specific
cycle from the outside via the antenna, and
a current time counter for sequentially updating current time
information by using the time corresponding to the time information received
by the receiving unit,

the time display unit using a piezoelectric actuator as a drive source and displaying
the time information with the mechanical structure on the basis of the current time
information,

the timing device driving pointers to display the current time while receiving radio
wave signals

~~a drive unit having a piezoelectric actuator that oscillates according to a signal from~~
~~the communication unit, and a mechanical structure designed to be driven by the piezoelectric~~
~~actuator and provided with a time display unit displaying time information, the mechanical~~
~~structure displaying the time information on the time display unit on the basis of the current~~
~~time information from the current time counter unit, the time display unit being operable~~
~~while the electromagnetic waves are being received.~~

11. (Cancelled).

12. (Previously Presented) The radio controlled timepiece according to
claim 10, wherein

the mechanical structure further has a rotor, and

the piezoelectric actuator is configured so as to drive rotatably the rotor by elliptical
movement resulting from a combination of longitudinal oscillation and curved oscillation.

13. (Currently Amended) The radio controlled timepiece according to claim 10, wherein

the piezoelectric actuator includes ~~comprises~~ an oscillating plate having a plate-shaped piezoelectric element and a reinforcing plate stacked on the piezoelectric element, a contact section provided to the longitudinal tip of the oscillating plate, a support member, and a holding section to hold the oscillating plate on the support member, and

the contact section is disposed at a location in which a rotor of the mechanical structure is driven by displacement resulting from the oscillation of the piezoelectric element.

14. (Currently Amended) The radio controlled timepiece according to claim 10, wherein

the time display unit includes ~~comprises pointers to display time information and a~~ pointer driving actuator to drive the pointers, and

the antenna is disposed at a location in which the positive projection of the antenna on a plane perpendicular to the thickness direction of the timing device does not overlap the positive projection of the pointer driving piezoelectric actuator on the plane, and is also disposed to be separated by a specific distance in a direction perpendicular to the thickness direction.

15. (Currently Amended) The radio controlled timepiece according to claim 10, wherein

the time display unit includes ~~comprises pointers to display the time information and a~~
pointer driving actuator to drive the pointers, and

the antenna is disposed at a location in which at least part of the positive projection of
the antenna on a plane perpendicular to the thickness direction of the timing device overlaps
the positive projection of the pointer driving piezoelectric actuator on the plane, and is also
disposed to be separated by a specific distance in a direction perpendicular to the thickness
direction.

16.-17. (Canceled).

18. (Previously Presented) A timing device ~~radio-controlled timepiece,~~
comprising:

communication means for communicating with an external communication device,
~~the communication means having receiving means for receiving time information at a~~
~~specific cycle from the outside via an antenna, and current time counter means sequentially~~
~~updating the current time information using the time corresponding to the time information~~
~~received by the receiving means as a reference; and~~

time display means provided with a piezoelectric actuator that vibrates according to
signals from the communication means, and designed for displaying the time information, ~~the~~
~~time display means displaying the time information on the time display means on the basis of~~
~~the current time information from the current time counter means, the time display means~~
~~being operable while the time information is being received by the receiving means~~

the communication means including
receiving means for receiving the time information at a specific cycle
from the outside, and
current time counting means for counting sequentially updating current
time information by using the time corresponding to the time information
received by the receiving means,
the time display means using the piezoelectric actuator as a drive source and
displaying the time information on the basis of the time information,
the timing device driving pointers to display the current time while receiving
electromagnetic wave signals for communication with the external device.

19. (Currently Amended) A method for controlling a timing device radio
~~controlled timepiece~~, comprising:

a preparation step for preparing a timing device including ~~comprising~~ an antenna, a
control unit, a piezoelectric actuator, and a mechanical structure having a time display unit;

a time display step in which the control unit drives the piezoelectric actuator as a
drive source, the piezoelectric actuator operates the mechanical structure, and the time is
displayed on the time display unit on the basis of current time information;

a communication step in which the control unit communicates with an external
communication device at a specific cycle via an antenna in conjunction with the time display
step and a current time counter unit of the control unit sequentially updates the current time
information using the time corresponding to the time information received by the control unit
as a standard; and

a correction step in which the time displayed on the time display unit is corrected on the basis of the current time information from the current time counter unit, the timing device driving pointers to display the current time while receiving electromagnetic wave signals for communicating with the external device ~~the time display unit being operable during the communication step.~~

20. (Cancelled).

21. (Previously Presented) A method for controlling a timing device ~~radio controlled timepiece~~, comprising:

a preparation step to prepare a timing device comprising a control unit having a receiving unit and current time counter unit, a piezoelectric actuator, and a mechanical structure having a time display unit;

a current time counting step to update sequentially current time information by receiving using electromagnetic waves ~~being received~~ from the outside at a specific cycle via an antenna ~~current time information and~~ by using the time corresponding to the time information received by the receiving unit ~~the current time counter unit using the time information as a standard~~; and

a time display step to display the time information on the time display unit ~~by the control unit driving the mechanical structure~~ by the piezoelectric actuator as a drive source on the basis of the current time information ~~from the current time counter unit~~, the timing device

driving pointers to display the current time while receiving the electromagnetic waves ~~time display unit being operable while the electromagnetic waves are being received.~~

22. (Previously Presented) The radio controlled timepiece according to claim 10, further comprising an electric power source that is electrically connected to the communication unit and the drive unit, the electric power source is configured to supply electric energy to the drive unit, wherein

the drive unit includes an operating unit to operate the time display unit, a standard oscillation signal source that is connected to the time display unit, and a timing IC.

23. (Previously Presented) The radio controlled timepiece according to claim 18, further comprising an electric power source that is electrically connected to the communication unit and the drive unit, the electric power source is configured to supply electric energy to the drive unit, wherein

the drive unit includes an operating unit to operate the time display unit, a standard oscillation signal source that is connected to the time display unit, and a timing IC.

24-25. (Canceled).

26. (Currently Amended) A radio controlled timepiece, comprising:
an antenna;
a communication unit being configured to communicate with an external communication device via said antenna ~~and to send signals to a piezoelectric actuator;~~

a generator unit being provided with a generating coil, said generator unit being designed to convert kinetic energy into electric energy by utilizing electromagnetic induction;
a storage unit being configured to store electric energy; and
a mechanical structure having a rotor, said piezoelectric actuator, a time display unit being driven by said piezoelectric actuator and displaying time information, and an analog display device having analog pointers to display physical quantities,

the communication unit having

a receiving unit configured to receive time information at a specific cycle from the outside via the antenna,

a current time counter for sequentially updating current time information by using the time corresponding to said time information received by said receiving unit,

said piezoelectric actuator being supplied with said electric energy from said storage unit, said piezoelectric actuator being configured to oscillate according to a signal from said communication unit,

said piezoelectric actuator having[[,]]

an oscillating plate having a plate-shaped piezoelectric element and a reinforcing plate stacked on the piezoelectric element,

a contact section being provided on a longitudinal tip of said oscillating plate,

a support member, and

a holding section being configured to hold said oscillating plate on said support member,

said timing device driving pointers for displaying the current time information while receiving time information on electro magnetic waves.

27. (Canceled).

28. (Previously Presented) The radio controlled timepiece according to claim 10, wherein
the electromagnetic waves are standard time signals.

29. (Previously Presented) The radio controlled timepiece according to claim 28, wherein
the length of a data cycle of each of the standard time signals is 60 seconds.

30. (Previously Presented) A radio controlled timepiece according to claim 18, wherein
the time information is contained in each of the standard time signals with 60 seconds of a data cycle.